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## SNAKES OF THE CHILPANCINGO REGION, MEXICO

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In the course of biological investigations carried on by the senior author and his students in the Mexican state of Guerrero from 1952 to 1958, 283 snakes were assembled from the Chilpancingo region. These represent 42 species, five of which have not been reported previously from that area. Although we concentrated heavily on the herpetofauna, we failed to take 19 species that had been reported by other workers in the area.

Our efforts were concentrated in the vicinity of Acahuizotla, a small village about 30 km. south of Chilpancingo, but we made numerous trips to localities within a radius of 50 miles.

*Physiography and Vegetation.* The main topographic features of central Guerrero have been produced by erosion and volcanism. The most conspicuous feature of the area is the Sierra Madre del Sur which trends in a general east-west direction in conformity with the shape of the continental mass. The Balsas Basin, which borders the study area on the north, was formed by the Rio Balsas, the major river of Guerrero. Within the basin proper the seasons are rather distinct. The rainy season is extremely short, lasting mainly from June through September, but sporadic rains occur in October and November. The rains fall primarily in late afternoon and at night. They are usually of short duration but often torrential. Daytime temperatures are hot throughout most of the year. The vegetation is xeric and sparse in most areas but becomes more luxuriant at higher elevations.

The mountains of the Sierra Madre del Sur form an effective barrier to prevailing winds from the Pacific and their north side is comparatively drier than the south. Consequently, the Tropical Deciduous Forest is composed of two types; the xeric, which lies on the northern slopes of the sierra, and the mesic, which occupies the southern slopes. The elevations at which the various vegetation types occur are about 2000 feet lower on the southern slopes and the ecotone between the tropical deciduous and pine-oak forests is not as distinct as that on the northern slopes.

Of the 61 forms of snakes occurring in the region, more than half (34) are confined to one of four vegetation types (Fig. 1); 27 occur in two or more types (Fig. 2).

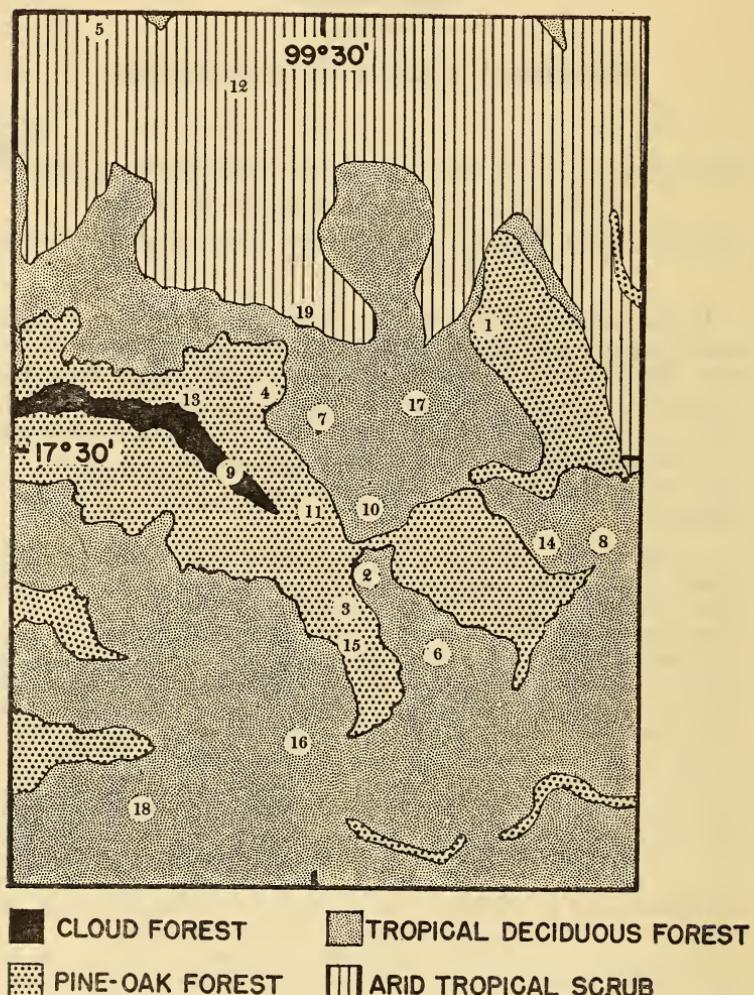
**FIGURE 1.**

Figure 1. Vegetational map of the Chilpancingo Region. The numbers are sites at or near which specimens have been taken. (1) Almolonga (= Amula), (2) Acahuizotla, (3) Agua del Obispo, (4) Amojileca, (5) Balsas Norte, (6) Chapolapa, (7) Chilpancingo, (8) Colotlipa, (9) Cuapongo, (10) Mazatlán, (11) Mazatlán Logging Camp, (12) Mexcala, (13) Omiteme, (14) Quechultenango, (14) Rincón, (16) Tierra Colorada, (17) Tixtla, (18) Xaltianguis, (19) Zumpango.

The following accounts of species are based on specimens collected by field parties of the Department of Wildlife Management and deposited in the Texas Cooperative Wildlife Collection (TCWC).

Family TYPHLOPIDAE Jan

*Typhlops braminus* (Daudin)

TCWC (5), Tropical Deciduous Forest. Acahuizotla, 2800 ft., (4); 1 mi. SW Colotlipa, 2800 ft., (1). Scales from rostral to tip of tail, 303-322, mean 313; scale rows at mid-body, 20; supralabials, 4-4 (4), 3-3 (1); each scale with minute brown stippling. Other records: Chilpancingo (Shreve, 1938; Taylor, 1940a); Agua del Obispo (Smith, 1943; Taylor, 1940a); ca. Xaltianguis (Taylor, 1940a).

*Leptotyphlops phenops bakewelli* (Oliver)

TCWC (5), Tropical Deciduous Forest. Acahuizotla, 2800 ft., (2); 2 mi. W. Colotlipa, 2700 ft., (1); 1 mi. SW Colotlipa, 2800 ft., (2). Scale rows at mid-body, 14; ventrals, 221-246, mean 236; caudals, 11-20, mean 14.8; supralabials, 4-4; infralabials, 4-5 (1), 5-5 (2), 6-6 (2). Other record: Acahuizotla (Smith, 1943).

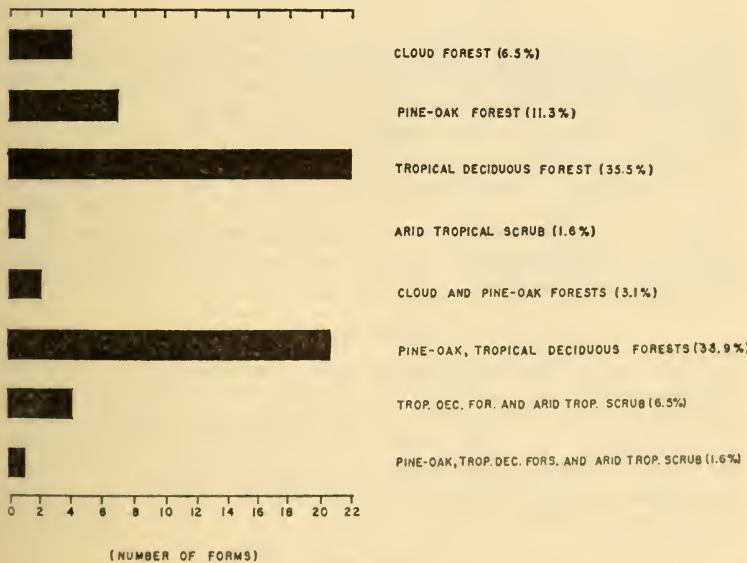


FIGURE 2

Figure 2. Bar graph showing the distribution of snakes in the Chilpancingo region according to vegetation types. Note that the bottom four bars include two or more vegetation types; the top four, a single vegetation type.

## Family BOIDAE Gray

*Constrictor constrictor imperator* (Daudin)

TCWC (13), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft., (5); ca. Colotlipa, 2800 ft., (2); 5 mi. SE Tierra Colorada, 1000 ft., (1); Xaltianguis, 1600 ft., (1); ca. Agua del Obispo, 3300 ft., (5). Scale rows at mid-body, 61–76; base of tail, 37–42; ventrals of males, 237–239, mean 238, of females, 229–249, mean 238.4; caudals of males, 64–67, mean 65.7, of females, 52–62, mean 56.3; supralabials, 18–21; infralabials, 21–25; total length of largest specimen, 2030 mm., smallest, 482 mm. This species exhibited the greatest amount of variation of all of the forms examined.

## Family PYTHONIDAE Cope

*Loxocemus sumichrasti* (Bocourt)

TCWC (1 female), Tropical Deciduous Forest. Acahuizotla, 2800 ft. Scale formula, 30–31–25; ventrals, 263; caudals, 43; supralabials, 10–11; infralabials, 12–12; preoculars, 1–1; postoculars, 3–3; temporals, 3+4 on each side. Our specimen is similar to those taken near Acapulco by Taylor (1940b).

## Family COLUBRIDAE Dunn

*Clelia clelia clelia* (Daudin)

TCWC (2), Tropical Deciduous Forest. Acahuizotla, 2800 ft. The two specimens, both females, definitely establish the presence of this race in the Pacific subregion of southwestern Mexico. According to Smith and Taylor (1945), this race previously was known from only five localities in Chiapas, Oaxaca, Tabasco, Veracruz, and Yucatán.

Our specimens show no approach to the color ascribed to the northern race *immaculata* in Colima and Jalisco. Each of the dorsal scales is distinctly dark-tipped. Scale formula, 17–17–17; ventrals, 221, 228; caudals, 75, 84; supralabials, 7–7; infralabials, 8–8, preoculars, 1–1; postoculars, 2–2; temporals, 2+3 on each side; loreal distinct, longer than high; total length, 686, 495 mm.

*Coniophanes fissidens dispersus* (Smith)

TCWC (1 male), Tropical Deciduous Forest. Acahuizotla, 2800 ft. Scale formula, 19–19–15; ventrals, 123; caudals, 75; supralabials, 8–8; infralabials, 9–9; preoculars, 1–1; postoculars, 2–2; temporals, 1+2 +3 on each side. Our specimen differs from the description of the type and paratype mainly in the paucity of white in the region of the nape, dark stripes strongly evident only on the tail; two white spots on each side of the neck, rather than one.

*Conophis vittatus viduus* (Cope)

TCWC (9), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (3); Agua del Obispo, 3300 ft. (1); ca. Colotlipa, 2700 ft. (5). Differences between specimens from the Chilpancingo region and a series of *C. vittatus vittatus* from the vicinity of Acapulco are as follows:

## Chilpancingo Area

## Acapulco

Ventrals	
(7) Male 161–164 (M–162.0)	(7) 149–156 (M–152.4)
(2) Female 163, 168	(2) 157, 159
Caudals	
(7) Male 64–71 (M–66.3)	(7) 65–67 (M–66.0)
(2) Female 63, 65	(2) 60, 62

Previous to this study, *C. vittatus viduus* was known only from the vicinity of Tehuantepec, Oaxaca. The aforementioned series extends the range of *vittatus viduus* some 300 airline miles west northwest.

*Dryadophis melanolomus stuarti* (Smith)

TCWC (3), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (2); Agua del Obispo, 3300 ft. (1). Scale formula, 17–17–15; ventrals of male, 182, of females, 187, 188; caudals of male, 120, of females, 113, 114; supralabials, 9–9; infralabials, 10–11 (2), 11–11 (1); preoculars, 1–1 (2), 2–2 (1); postoculars, 2–2; temporals, 2+2 on each side.

*Drymarchon corais rubidus* (Smith)

TCWC (4 males), Tropical Deciduous Forest. 2 mi. SW Colotlipa, 2700 ft. (1); Acahuizotla, 2800 ft. (2); Tixtla, 4300 ft. (1). Scale formula, 19–17–15; ventrals, 199–201 (M–199.8); caudals, 72–77 (M–75.0); supralabials, 8–8; infralabials, 8–8 (1), 8–9 (2), 9–9 (2); preoculars, 1–1; postoculars, 2–2; temporals, 2+2. Other record: ca. Chilpancingo (Hall, 1951).

*Drymobius margaritiferus fistulosus* (Smith)

TCWC (17), Tropical Deciduous Forest. Acahuizotla, 2800 ft. (13); ca. Colotlipa, 2700 ft. (2); ca. Tierra Colorada, 1000 ft. (2). Scale formula, 17–17–15; ventrals of males, 143–150 (M–147.0), of females, 147–153 (M–149.6); caudals of males, 130–138 (M–134.6), of females, 126–131 (M–128.0); supralabials, 9–9 (15), 9–10 (2); infralabials, 9–10 (1); 10–10 (12), 10–11 (2), 11–11 (2); preoculars, 1–1; postoculars, 2–2; temporals, 2+2 on each side. Other records: Tierra Colorada, Ocotito (Smith, 1942b).

*Elaphe triaspis intermedia* (Boettger)

TCWC (13), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (10); Agua del Obispo, 3300 ft. (1); 1 mi. SW Tixtla, 4500 ft. (1); 4 mi. N. El Ocotito, 2400 ft. (1). Scale formula, 27–31–21 to 33–35–25, more commonly 29–35–21; ventrals of males, 242–260 (M–252.3), of females, 267–282 (M–275.7); caudals of males, 108–124 (M–118.8), of females, 85–107 (M–94.5); supralabials, 8–8 (6), 8–9 (6), 9–9 (1); infralabials, 10–11 (5), 11–11 (5); 11–12 (2), 12–12 (1); preoculars, 0–0 (1), 1–1 (11), 1–2 (1); postoculars, 2–2; temporals, 2+5 to 3+5, more commonly 3+4. Other records: ca. Chilpancingo (Hall, 1951); Amula (Günther, 1894).

*Enulius unicolor* (Fischer)

TCWC (2 males), Lower Pine-oak and Tropical Deciduous forests. 4 mi. W. Chilpancingo, 5800 ft. (1); Acahuizotla, 2800 ft. (1). Scale formula, 17—17—17; ventrals, 166, 175, caudals, 87, 104; supralabials, 7—7; infralabials, 7—7, 7—8; no preoculars; postoculars, 2—2; temporals, 1+2 on each side. The male from 4 mi. W. Chilpancingo differs from the series discussed by Taylor (1940b), in having a lower combination of ventrals and caudals, 270, rather than 280 or more. Other record: Agua del Obispo (Taylor, 1940b).

*Geophis omiltemana* (Günther)

TCWC (2), Humid Pine-oak Forest. 1 mi. W. Omilteme, 7800 ft. Scale formula, 17—17—17; ventrals of male, 158, of females, 160; caudals of male, 48, of female, 42; supralabials, 6—6; infralabials, 7—7; no preoculars; postoculars, 2—2; temporals, 1+2 on each side. The vertebral and two paravertebral scale rows of the male are faintly keeled. Other records: Omilteme (Günther, 1893; Smith, 1943).

*Lampropeltis doliata blanchardi* (Stuart)

TCWC (5), Lower Pine-oak and Tropical Deciduous forests. *ca.* Colotlipa, 2700 ft. (2); 10 km. SW Chilpancingo, 4500 ft. (1); 2.5 mi. S. Almolonga, 5600 ft. (2). Scale formula, 23—21—19; ventrals of males, 211, 212 (2), of females, 208, 211; caudals of males, 54 (2), 55, of females, 51, 48; supralabials, 7—7; infralabials, 9—9; preoculars, 1—1; postoculars, 2—2; temporals, 2+3 on each side. This series differs from a series examined by Hall (1951) in having all infralabials 9—9, rather than 8+8. Other records: *ca.* Chilpancingo (Gadow, 1905; Hall, 1951); Tierra Colorada, Amula (Smith and Taylor, 1945).

*Leptodeira septentrionalis polysticta* (Günther)

TCWC (4), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (3); Agua del Obispo, 3300 ft. (1). These specimens are discussed in detail by Duellman (1958). Other record: Agua del Obispo (Smith, 1943).

*Leptodeira latifasciata* (Günther)

TCWC (2), Tropical Deciduous Forest. Acahuizotla, 2800 ft. In our two immature specimens, the male has eight white rings on the body and four on the tail; in the female, seven and three, respectively. The nape and posterior part of the head back of the eyes are orange in color; the black bands are about three times as wide as the white ones. Other records: Rio Balsas (Boulenger, 1905; Gadow, 1905); El Naranjo (Taylor, 1938).

*Leptodeira annulata cussiliris* (Duellman)

TCWC (14), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (9); 4 mi. W. Chilpancingo, 5800 ft. (1); 5 mi. SW Tierra Colorada, 1000 ft. (1); Rincón, 2500 ft. (2); 4 mi. N. Ocotito, 2600 ft. (1). This series is discussed in detail by Duellman (1958). Other records: *ca.* Chilpancingo, Tierra Colorada, Agua del Obispo (Smith, 1943; Duellman, 1958); Mazatlán (Taylor, 1938); Omilteme, Xaltianguis (Duellman, 1958).

*Manolepis putnami* (Jan)

TCWC (8), Tropical Deciduous Forest. Acahuizotla, 2800 ft. Scale formula, 19-19-15; ventrals of males, 170, 173, of females, 179-182 (M-180.7); caudals of males, 74, 80, of females, 65-68 (M-66.6); supralabials, 8-8; infralabials, 10-10; preoculars, 1-1; postoculars, 2-2; temporals, 1+2+3 on each side. This series differs from those reported on from Tehuantepec, Oaxaca, by Werler and Smith (1952) in having 10 infralabials, rather than 9; ventral coloration of males identical to that of females rather than immaculate; dorsal color of females brownish rather than gray; brown line on first scale row distinct rather than broken and ill defined; chin, throat, and venter to 17th ventral black, rather than chin only black. There is much less sexual dichromatism in our series than that of the Tehuantepec population.

*Masticophis flagellum lineatus* (Bocourt)

TCWC (17), Lower Pine-oak and Tropical Deciduous forests. *ca.* Chilpancingo, 4500 ft. (2); Acahuizotla, 2800 ft. (5); 3 mi. S. Petaquillas, 4800 ft. (1); 1 mi. SW Colotlipa, 2700 ft. (3); *ca.* Mazatlán, 4400 ft. (1); Palo Blanco, 3000 ft. (1); 2.5 mi. S. Almolonga, 5600 ft. (4). Scale formula, 19-17-13; ventrals of males, 182-193 (M-187.0), of females, 189-197 (M-193.6); caudals of males, 116-133 (M-124.0), of females, 115-125 (M-119.7); supralabials, 8-8 (15), 8-9 (2); infralabials, 9-10 (1), 10-10 (14), 10-11 (1), 11-11 (1); preoculars, 2-2; postoculars, 2-2 (16), 2-3 (1); temporals, 2+3+3 (16), 1+2+3 (1) on each side. Other records: *ca.* Chilpancingo (Hall, 1951); Amula (Boulanger, 1893).

*Oxybelis aceneus auratus* (Bell)

TCWC (9), Tropical Deciduous Forest. Acahuizotla, 2800 ft. Scale formula, 17-17-13; ventrals of males, 190, 192, of females, 189-195 (M-192.3); caudals of males, 177, 188, of females, 171-190 (M-179.0); supralabials, 8-8 (8), 8-9 (1); infralabials, 8-9 (2), 9-9 (4), 9-10 (2), 10-10 (1); preoculars, 1-1; postoculars, 1-1 (1), 2-2 (8); temporals, 1+2 on each side. Our largest specimen measured 1368 mm., smallest, 1148 mm. Other records: *ca.* Chilpancingo (Hall, 1951); 6 km. N. Chilpancingo (Taylor, 1941).

*Pituophis deppei lineaticollis* (Cope)

TCWC (2 males), Tropical Deciduous Forest. Acahuizotla, 2800 ft. Scale formula, 27-27-21; ventrals, 238, 239; caudals, 69, 66+; supralabials, 8-8; infralabials, 11-12; preoculars, 1-1; postoculars, 2-2; temporals, 1+2+3 on each side. Other records: Omilteme (Stull, 1940); Chilpancingo (Smith and Taylor, 1945).

*Rhadinaea aemula* (Bailey)

TCWC (2), Dry Pine-oak Forest. 2.5 mi. S. Almolonga, 5600 ft. Scale formula, 17-17-17; ventrals of male, 158, of female, 169; caudals of male, 50+, of female, 106; supralabials 8-8, 8-9; infralabials, 10-10; preoculars, 1-1, 2-2; postoculars, 2-2, 2-3; temporals, 1+2+3 on

each side. The female differs from the male in having a black dot on the outer edge of each ventral forming an inconspicuous line; the area below the black lateral line is stippled with black rather than clear white. Other records: Omilteme, Mountains near Chilpancingo, Amula (Bailey, 1940).

*Rhadinaea hesperia hesperia* (Bailey)

TCWC (3), Pine-oak Forest. Mountains west of Acahuizotla, 3500 ft. (1); Agua del Obispo, 3300 ft. (2). Scale formula, 17—17—17; ventrals of males, 149, 147, of female, 163; caudals of males, 120, 59+, of female, 97; supralabials, 8—8; infralabials, 9—9 (2), 9—10 (1); preoculars, 1—2 (1), 2—2 (2); postoculars, 2—2 (2), 3—3 (1); temporals, 1+2 on each side. The loreal scale is present in all three specimens. Other records: 5 mi. N. Chilpancingo (Smith, 1942c); Omilteme, Mountains near Chilpancingo, Chilpancingo, Amula (Bailey, 1940).

*Salvadora intermedia intermedia* (Hartweg)

TCWC (3), Pine-oak Forest. 4 mi. W. Chilpancingo, 6000 ft. (2); 2.5 mi. S. Almolonga, 5000 ft. (1). Scale formula, 17—15—13; ventrals of males, 177, 181, of female, 194; caudals of males, 102, 105, of female, 100; supralabials, 8—8; infralabials, 10+10; preoculars, 2—2; postoculars, 2—2 (2), 2—3 (1); temporals, 2+3 on each side. The female from Almolonga differs from all other known specimens of *intermedia* in having 194 ventrals rather than 182 or less. Other records: Chilpancingo (Hartweg, 1940); Amula (Boulenger, 1896).

*Salvadora mexicana* (Dumeril, Bibron, and Dumeril)

TCWC (14), Tropical Deciduous Forest and Arid Tropical Scrub. 1 mi. SW Colotlipa, 2700 ft. (2); ca. Tierra Colorada, 1000 ft. (7); Acahuizotla, 2800 ft. (3); Mexcala, 1700 ft. (2). Scale formula, 17—17—13; ventrals of males, 185—189 (M—187.0), of females, 188—193 (M—190.5); caudals of males, 124—142 (M—132.1), of females, 124—129 (M—126.0); supralabials, 8—9 (1), 9—9 (13); infralabials, 10—11 (1), 11—11 (12), 11—12 (1); preoculars, 1—1; postoculars, 2—2 (13), 2—3 (1); temporals, 2+1+2 (9), 2+2+2 (5) on each side. This species is common in the Chilpancingo region. This series was taken from rock walls, under rocks, in tall grass, and in trees. Two specimens were found on the highway, near Mexcala, stuck to freshly poured asphalt.

*Sibon nebulatus* (Linnaeus)

TCWC (1 male), Tropical Deciduous Forest. Acahuizotla, 2800 ft. Scale formula, 15—15—15; ventrals, 181; caudals, 91; supralabials, 7—7; infralabials, 10—10; preoculars, 0—0; postoculars, 2—3; temporals, 1+2 on each side. This specimen differs from the male discussed by Taylor (1940b), in having 10 infralabials rather than eight. Other record: Palo Gordo (Taylor, 1940b).

*Stenorhina freminvilli freminvilli* (Dumeril, Bibron, and Dumeril)

TCWC (18); Tropical Deciduous Forest. 1 mi. SW Colotlipa, 2700 ft. (2); Acahuizotla, 2800 ft. (16). This series of specimens is composed of two distinct forms. One, which agrees with the description of *S. f. lactea* Cope, is reddish above and pinkish below, with a distinct dark stripe through the eye and usually a faint, brownish mid-dorsal stripe.

The other series, which agrees with the description of *S. f. freminvilli*, is grayish brown with five distinct blackish brown stripes. It is difficult for us to conceive of *lactea* as a subspecies of *S. freminvilli* because both forms occur together in relative abundance in central Guerrero without intergrading. A synopsis of the number of ventrals and caudals of the two forms is as follows:

<i>freminvilli</i>	Ventrals	" <i>lactea</i> "
165—169 (M—167.4)	males	164—171 (M—167.3)
170—176 (M—172.0)	females	170—175 (M—173.2)
	Caudals	
36—40 (M—38.2)	males	39—40 (M—39.7)
30—34 (M—32.8)	females	31—34 (M—32.7)

The two forms appear to be nothing more than color phases. We feel that *lactea* does not merit subspecific status and that it should be submerged as a synonym of the subspecies *S. f. freminvilli*.

#### *Tantilla bocourti* (Günther)

TCWC (3), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (2); Agua del Obispo, 3300 ft. (1). Scale formula, 15—15—15; ventrals of males, 176, 177, of female, 184; caudals of males, 43, 51, of female, 41; supralabials, 7—7; infralabials, 6—6 (1), 6—7 (1), 7—7 (1); preoculars, 1—1; postoculars, 2—2 (2), 2—3 (1); temporals, 1+1 (2), 1+2 (1) on each side. The three specimens fall within the range of variation given by Taylor (1940b). Other record: Omiteme (Smith, 1942a).

#### *Tantilla coronadoi* (Hartweg)

TCWC (1), Tropical Deciduous Forest. 3 mi. W. Chilpancingo, 5000 ft. This young male is seemingly the second known specimen of this species. In scalation, it corresponds in most respects with Hartweg's (1944) description of the type, which also came from near Chilpancingo, including the relation of the seventh supralabial to the parietal and the consequent absence of the posterior temporal. The color pattern, however, seems to differ from the type specimen. Superficially, there are three dark longitudinal stripes, most pronounced in the neck region, but under a lens, nine distinct dark stripes are evident. The lateral stripe involves mainly the third and adjacent half of the fourth scale rows as in the type. A distinct whitish spot is evident on each side between the dorsal and lateral stripes, involving the first five scales posterior to the parietals and suggesting the "beginning" of a white nuchal collar. A faint light line proceeds forward from each spot along the outer edges of the parietals and prefrontals to converge with the adjoining line on the internasals. Scale formula, 15—15—15; ventrals, 160; caudals, 35; supralabials, 7—7; infralabials, 6—6; preoculars, 1—1; postoculars, 2—2 (lower one minute); temporals, 1—1; seventh supralabial in contact with parietal; total length, 174 mm.; length of tail, 28 mm.

The specimen was found under a rock on the dry, rocky, slopes of the mountains between Chilpancingo and Amojileca. The vegetation there is primarily chaparral and grasses.

*Thalerophis diplotropis* (Günther)

TCWC (8), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (6); 5 mi. W. Acahuizotla, 3500 ft. (1); 2.5 mi. S. Almolonga, 5600 ft. (1). Scale formula, 15—15—11; ventrals of males, 163—172 (M—168.4), of females, 171—177 (M—173.3); caudals of males, 126—154 (M—142.0), of females, 133—147 (M—140.0); supralabials, 8—8; infralabials, 9—10 (1), 10—10 (3), 10—11 (3), 11—11 (1); preoculars, 1—1; postoculars, 2—2; temporals, 1+2 on each side. The male from Almolonga has fewer ventrals and caudals (163 and 126 respectively) and more infralabials (11) than normally found in this form. Other records: Ocoteo, Chilpancingo (Oliver, 1948); Amula (Günther, 1894).

*Toluca conica* (Taylor and Smith)

TCWC (19), Humid Pine-oak Forest. 2 mi. W. Omilteme, 8000 ft. Scale formula, 17—17—17; ventrals of males, 120—125 (M—122.3), of females, 124—133 (M—129.5); caudals of males, 30—35 (M—32.7), of females, 21—28 (M—25.1); supralabials, 6—6 (4), 6—7 (2), 7—7 (11); infralabials, 6—6 (10), 6—7 (3), 7—7 (6); preoculars, 1—1; postoculars, 1—1 (3), 2—2 (16); temporals, 1+2 on each side; loreal, 0—0 (16), 1—1 (3). This series does not differ significantly from the description of the type and paratypes given by Taylor (1940b). Other records: Between Rincón and Cajones, Agua del Obispo (Smith, 1943); Chilpancingo (Taylor, 1940b); Tierra Colorada, Gadow, 1905.

*Trimorphodon biscutatus semirutilus* (Smith)

TCWC (7 females), Tropical Deciduous Forest. Acahuizotla, 2800 ft. (6); 1 mi. SW Colotlipa, 2700 ft. (1). Scale formula, 25—24—16 to 25—28—19; ventrals, 259—281 (M—272.1); caudals, 85—103 (M—93.9); supralabials, 8—8 (2), 9—9 (5); infralabials, 11—11 (1), 12—12 (4), 13—13 (1), 14—14 (1); preoculars, 3—3; postoculars, 3—3; temporals, 3+3 (1), 3+4 (6) on each side; loreal, 2—2. Fugler and Dixon (in press) have discussed the relationships of this species with forms to the north and a population of the same species to the south. Other records: Agua del Obispo, between Rincón and Cajones (Smith, 1943); Tierra Colorada (Gadow, 1905).

*Trimorphodon latifascia* (Peters)

TCWC (5), Lower Pine-oak and Tropical Deciduous forests. ca. Almolonga, 5800 ft. (3); 4 mi. W. Chilpancingo, 5800 ft. (1); Palo Blanco, 4800 ft. (1). Scale formula, 21—23—15 to 26—23—15; ventrals of males, 198, 220, 221, of females, 222, 226; caudals of males, 66, 77, 78, of females, 64 (2); supralabials, 8—8 (3), 8—9 (2); infralabials, 11—12 (1), 12—12 (2), 12—13 (1), 13—13 (1); preoculars, 2—2 (1), 3—3 (4); postoculars, 3—3; temporals, 3+4 and each side; loreals, 2—2 (4), 3—3 (1); dorsal blotches, 14—17 (M—16). This series differs from those discussed by Taylor (1940b) in having a higher average number of dorsal blotches. Other record: ca. Chilpancingo (Hall, 1951).

*Tropidodipsas guerreroensis* (Taylor)

TCWC (8), Tropical Deciduous Forest. Acahuizotla, 2800 ft. These specimens have been discussed in detail by Davis (1953).

*Thamnophis chrysoccephalus* (Cope)

TCWC (1 male), Humid Pine-oak Forest. 4 mi. W. Mazatlán, 8000 ft. Scale formula, 17—17—15; ventrals, 141; caudals, 76; supralabials, 7—8; infralabials, 9—10; preoculars, 1—1; postoculars, 3—3; temporals, 3+3 on each side. This specimen constitutes the fourth locality record for this species in Guerrero. It apparently is restricted to the high elevations in central and northwestern Guerrero.

*Thamnophis cyrtopsis cyclides* (Cope)

TCWC (5), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (2); 2.5 mi. S. Almolonga, 5600 ft. (3). This is discussed in detail by Milstead (1953). Other records: ca. Chilpancingo (Hall, 1951; Smith, 1942d); Omilteme, Amula (Milstead, 1953).

*Thamnophis scalaris godmani* (Günther)

TCWC (22), Cloud and Pine-oak forests. ca. Omilteme, 7800-8000 ft. (17); 4 mi. W. Chilpancingo, 5800 ft. (2); 5 mi. W. Mazatlán, 8000 ft. (3). Scale formula, 17—17—17 to 21—17—17; ventrals of males, 146—153 (M—148.5), of females, 136—148 (M—141.3) caudals of males, 75—84 (M—79.6), of females, 66—84 (M—73.7); supralabials, 7—7 (18), 7—8 (2), 8—8 (2), infralabials, 9—10 (5), 10—10 (12), 10—11 (4), 11—11 (1); preoculars, 1—1 (21), 1—2 (1); postoculars, 3—3; temporals, 1+2 on each side. Other records: Amula (Günther, 1894); Omilteme (Günther, 1894; Smith, 1942d; Smith, Nixon and Smith, 1950).

## Family ELAPIDAE Boie

*Micruurus nigrocinctus browni* (Schmidt and Smith)

TCWC (8), Lower Pine-oak and Tropical Deciduous forests. Acahuizotla, 2800 ft. (7); 10 km. SW Chilpancingo, 5800 ft. (1). Scale formula, 15—15—15; ventrals of males, 211—217 (M—214.0), of female, 225; caudals of males, 48—54 (M—52.0), of female, 42; supralabials, 7—7; infralabials, 7—7; preoculars, 1—1; postoculars, 2—2; temporals, 1+1+2 on each side. Other records: Omilteme, Chilpancingo (Boulenger, 1896; Schmidt and Smith, 1943).

## Family CROTALIDAE Gray

*Bothrops barbouri* (Dunn)

TCWC (2 females), Cloud and Humid Pine-oak forests. 2 mi. W. Omilteme, 7800 ft. (1); 2.5 mi. SW Omilteme, 8500 ft. (1). Scale formula, 19—17—15; ventrals, 146, 144; caudals, 29, 30; supralabials, 8—9, 9—9; infralabials, 9—10, 10—10; preoculars, 2—2; postoculars, 3—3. This species apparently is not restricted to the Cloud Forest as previously thought and may have a distribution similar to that of the rattlesnakes of the area. One was taken in a humid canyon within the cloud forest, the other on a rocky ridge within the pine-oak forest. Color in life: deep brown with darker brown cross bands. Other records: Omilteme (Shreve, 1938; Dunn, 1919).

*Bothrops undulatus* (Jan)

TCWC (3 males), Cloud Forest. 2 mi. SW Omilteme, 7800 to 8000 ft. Scale formula, 23—21—17; ventrals, 161, 163, 165; caudals, 43, 47, 52; supralabials, 10—10, 11—11, 11—12; infralabials, 11—11 (2), 12—13

(1); anal entire, all caudals divided, supraorbital spines present. This species apparently is restricted to the cloud forest in this area, and occurs mainly in damp situations. All three specimens were taken in areas of limestone outcrops and typical cloud forest flora. Color in life of two adults, greenish-yellow, heavily suffused with black flecks; ground color of juvenile gray with black spots or flecks. Dorsal pattern of adults and juvenile consists of a mid-dorsal, "zig-zag," dark brown line with coincident dark areas on the sides. Other records: Omilteme (Günther, 1895; Smith, 1941); Chilpancingo (Smith and Taylor, 1945). We question the correctness of the latter locality on ecologic grounds.

*Crotalus durissus culminatus* (Klauber)

TCWC (6), Lower Pine-oak and Tropical Deciduous forests. Achuizotla, 2800 ft. (5); 4 mi. W. Chilpancingo, 5800 ft. (1). Scale formula, 29–29–19 to 31–30–21; ventrals of males, 176–181 (M–179.0), of females, 181, 186; caudals of males, 28–32 (M–29.5), of females, 22, 28; supralabials, 13–14 (1), 14–14 (2), 15–15 (1), 15–16 (2); infralabials, 15–15 (2), 15–16 (1), 15–17 (2), 17–18 (1); anal entire. This form apparently has a much wider ecological distribution than was previously thought. One specimen was taken in Pine-oak Forest west of Chilpancingo. Other records: Chilpancingo, 25.7 mi. S. Chilpancingo, Omilteme (doubtful), (Klauber, 1952).

*Crotalus intermedius omiltemanus* (Günther)

TCWC (8 females), Cloud and Humid Pine-oak forests. 1–2 mi. W. Omilteme, 7800 to 8000 ft. Scale formula, 23–21–17, ventrals, 172–183 (M–175.6); caudals, 20–26 (M–22.0); supralabials, 8–9 (1), 9–9 (6), 10–10 (1); infralabials, 8–9 (1), 9–9 (6), 9–10 (1); Anal entire. Part of this series was reported on in detail by Davis and Dixon (1957).

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